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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,413	10/30/2003	Simion Coca	1731D1	7236

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PPG INDUSTRIES INC  
INTELLECTUAL PROPERTY DEPT  
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EXAMINER

PEZZUTO, HELEN LEE

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 03/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/697,413	<b>Applicant(s)</b> COCA ET AL.	
	<b>Examiner</b> Helen L. Pezzuto	<b>Art Unit</b> 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11/23/04.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 45-98 is/are pending in the application.
- 4a) Of the above claim(s) 63-83 and 85-98 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 45-62 and 84 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 45-98 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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Art Unit: 1713

**DETAILED ACTION**

Applicant's amendment to claims 47, 59-60 filed on 11/26/04 is acknowledged. Currently, claims 45-62 and 84 are under consideration in this application.

***Election/Restrictions***

1. Applicant's election with traverse of Group I, claims 45-62, and 84 in the reply filed on 11/26/04 is acknowledged. The traversal is on the ground(s) that the restriction is unduly expensive and burdensome on applicants, requiring the possible filing of three or more divisional applications, at the same time, presenting little, if any burden to the patent office. This is not found persuasive because the search for the elected thermosetting composition does not require the search for the method of coating/electro-coating as set forth in the restriction requirement. On the contrary, the search for all the inventions would impose undue burden on the office.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 63-83, 85-98 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 11/26/04.

Art Unit: 1713

3. This application contains claims 63-83, 85-98 drawn to an invention nonelected with traverse in the response filed on 11/26/04. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

4. In light of applicant's amendment to claims 47, and 59-60, previous 112 rejection of record is now withdrawn.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in

Art Unit: 1713

order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 45-62, and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barkac et al. (US-225) for the reasons of record and further in view of the following.

US 6,191,225 B1 to Barkac et al. discloses a thermosetting composition comprising a co-reactable particulate mixture of a polycarboxylic acid functional polymer (a), and an epoxy functional polymer (b). Specifically, polymer (a) is comprised of M<sup>1</sup> monomers residue of at least one ethylenically unsaturated monomer which are free of carboxylic acid moiety, and A monomer residues of at least one ethylenically unsaturated monomer which contain carboxylic acid moiety. Polymer (b) is comprised of M monomers residue of at least one ethylenically unsaturated monomer which are free of oxirane moiety, and A monomer residue of at least one ethylenically unsaturated monomer which contains oxirane moiety (col. 2, line 65 to col. 3, line 44). Polymers (a) and (b) has a number average molecular weight of at least 250, and each may have an alternating copolymer architecture, via experimental control of utilizing ATRP method (col. 4, lines 12-25; col. 9, lines 14-22). Prior art further teaches the removal of ATRP catalyst which meets applicant's requirement of

Art Unit: 1713

substantially free of Lewis acids and transition metals (col. 7, lines 14-29). Suitable non-functional  $M^1$  and M monomers can be at least one of vinyl monomers, allylic monomers and olefinic monomers, including the instant isobutylene and diisobutylene donor monomers (col. 11, lines 5-10), and (meth)acrylates, styrene (col. 10, line 27 to col. 11, line 5), which embrace the instant acceptor monomers as well as the additional donor monomer, and other ethylenically unsaturated monomers expressed in the present claims. Suitable amount of polymer (a) and (b) in prior art thermosetting composition is at least 0.5 wt% (col. 17, lines 21-52). Thus, prior art polymers (a) and (b) meet the requirement of the instant (a) and (c) as defined in the present claims. Furthermore, prior art suggest the inclusion of a second polycarboxylic acid functional material as represented by formula XV (col. 18, line 21 to col. 19, line 37; claim 22) which embraces the instant (b) as defined in claims 45, 50-56. Still further, prior art discussed the selection of  $M^1$  and A residues with respect to polymer (a), wherein the selection of residue A is limited by the selection of  $M^1$  residue (col. 12, lines 18-28), which would expect to result in an alternating structure of the recited donor/acceptor monomers wherein at least 30 mole% of the residues would have the alternating structure. Accordingly, it would have been obvious to one

Art Unit: 1713

skilled in the art to select olefinic M monomer with the disclosed functional A monomers to achieve an alternating structure, motivated by the reasonable expectation that at least 30 mole% of the residues would have the alternating structure as presently claimed.

Applicant's amendment and remarks have been fully considered but are not found to be persuasive. Firstly, applicant urges that Barkac et al. do not suggest to use the ATRP-derived polymers (a), and (b) as flow control additives as recited. The examiner disagrees as patentees disclose their utility as additives in the context of a thermosetting composition. It is by now well established that a new function or property for an otherwise known or obvious composition does not render a claim to the composition patentable, unless applicant establish that the function or property is unexpected. Secondly, applicant argues that Barkac et al. does not disclose the instantly claimed copolymer containing at least 30 mol% of alternating segments from the recited donor monomers, but rather these monomer can remove the radically transferable group of the initiators and terminate polymerization. This is not found to be compelling for at least the following reasons. Patentees refer this to the embodiment wherein the radically transferable group is a halogen, and in such instance, the removal is performed as

Art Unit: 1713

a post-polymerization reaction (col. 14, line 63 to col. 15, line 1). Furthermore, the radically polymerizable ethylenically unsaturated compounds taught to be useful in the dehalogenation is not particularly limited to the recited donor monomers (col. 15, line 37 to col. 16, line 5). Thirdly, applicant urges that Example C in Barkac et al. indicates the making of an alternating copolymer is highly unlikely. Nothing on this record substantiate applicant's assertion. Such arguments or conclusions cannot take the place of evidence. So long as prior art teaches the formation of copolymers (a), (b) containing alternating copolymer structures, the determination of the optimum or working ranges of alternating residues inclusive of the instant at least 30 mol%, would involve only routine skill in the art. Applicant further argues that the claimed alternating copolymers are prepared by typically using an excess of donor monomers, which is not disclosed by patentees. This is found to be unpersuasive as the instantly elected invention is directed to a thermosetting composition, not method of making it. Finally, applicant argues the ATRP catalyst removal method used in Barkac et al. is insufficient to prevent poor stability, discoloration or shortened shelf-life as disclosed in page 6 of applicant's specification. The examiner does not find this to be relevant as the properties upon which applicant relies are not



Art Unit: 1713

recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification cannot be read into the claims. Accordingly, the instant case of prima facie obviousness is maintained.

### ***Double Patenting***

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 45-46, 49-62 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 13-14 of U.S. Patent No. 6,784,247

B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because the reasons of record.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

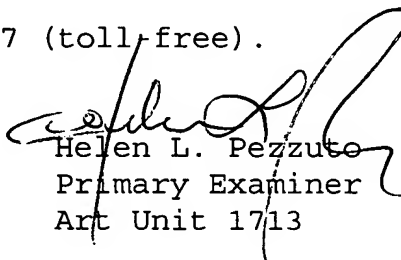
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen L. Pezzuto whose telephone number is (571) 272-1108. The examiner can normally be reached on 8 AM to 4 PM, Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1713

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Helen L. Pezzuto  
Primary Examiner  
Art Unit 1713

hlp